

## REMARKS

Applicant respectfully requests entry of the Amendment and reconsideration of the claims.

Please cancel claims 1-6, 8-9, 12-14, 16-20, 22-25, and 27-34 without prejudice or disclaimer. Applicant reserves the right to pursue the cancelled subject matter in one or more continuation or divisional applications.

Claims 7, 10-11, 15, 21, and 26 have been amended. New claims 35 and 36 have been added. The amendments and support for these amendments and new claims are discussed in detail below.

Applicants respectfully request reconsideration and withdrawal of the objection to the claims and the pending rejections under 35 U.S.C. § 102(b) and § 112, first and second paragraphs.

### Examiner Interview

Applicant thanks Examiner Slobodyansky for her time spent on a telephone interview with Applicant's representative, Brian R. Dorn, on August 10, 2007. Patentability of the claims was discussed. No agreement was reached. This amendment and response is consistent with the discussion.

### Claims

Applicant has amended claim 7 to recite "[a]n isolated Dispersin B (DspB) polypeptide comprising a polypeptide encoded by a nucleic acid sequence of at least 95% sequence identity to nucleotides 61 to 1143 of SEQ ID NO:1, wherein the DspB polypeptide cleaves a 1→4 glycosidic bond of  $\beta$ -substituted *N*-acetylglucosaminide." Sequence identity is discussed in the specification at page 10, line 34 to page 12, line 2. In particular, the specification recites a sequence identity of 95% at page 11, lines 20-25. Further, claim 7 recites nucleotides 61 to 1143, which represents the coding sequence for the mature DspB polypeptide. A signal sequence is discussed at page 9, lines 7-9. At Example 3 at page 38, lines 1-9, the coding sequence for the mature DspB polypeptide (amino acids 21-281) is exemplified. Since the first 20 amino acids are the signal sequence, then the signal sequence is encoded in the nucleic acid at

nucleotides 1-60 of SEQ ID NO:1. Hence the coding sequence of the mature DspB polypeptide begins at nucleotide 61. The three 3' terminal nucleotides of SEQ ID NO:1 are TGA, a well known stop codon. Thus, the coding sequence for the mature DspB polypeptide is nucleotides 61 to 1143. Additionally, the cleavage activity of the DspB polypeptide is supported at page 22, lines 16-20.

Claim 10 has been amended to depend on claim 7 and is supported at page 21, lines 3-28.

Claim 11 has been amended to depend on claim 7 and is supported at page 29, line 31 to page 33, line 2.

Claim 15 has been amended to depend on claim 7 and is supported at page 34, lines 6-22.

New claim 35 has been added. New claim 35 depends on claim 7 and is supported at page 33, lines 3-10.

New claim 36 has been added. New claim 36 depends on claim 7 and is supported at page 31, lines 12-35.

Claims 21 and 26 have been amended to depend on claim 7. Thus, these claims incorporate all of the limitations of claim 7. Support for claims 21 and 26 can be found throughout the specification, including at page 4, lines 24-28; page 22, line 32 to page 23, line 27; page 24, line 4 to page 27, line 11; page 28, lines 14-23; and page 29, lines 15-30. Following the Amendment, method claims 21 and 26 are linked to elected polypeptide claim 7. Applicant hereby requests rejoinder of non-elected claims 21 and 26 under MPEP § 821.04(b) upon the allowability of claim 7.

### **Objections to the Claims**

The Examiner objects to claim 7 as it is dependent on non-elected claims 1-4. As currently amended, claim 7 is an independent claim. This objection is now moot.

The Examiner objects to claims 7-11 and 15 due to the comma following the term "soluble". This has been deleted.

In view of the foregoing, Applicant respectfully requests removal of the objections to the claims.

**Rejection under 35 U.S.C. § 112, first paragraph**

The Examiner rejects claims 7-11 and 15 under 35 U.S.C. § 112, first paragraph, for allegedly lacking written description and enablement. Both rejections are directed to the recitation of "an active fragment or variant of  $\beta$ -N-acetylglucosaminidase". The recitation of "an active fragment or variant of  $\beta$ -N-acetylglucosaminidase" has been deleted from the pending claims. In view of amended claims 7-11 and 15, Applicant respectfully requests removal of the rejections under 35 U.S.C. § 112, first paragraph.

**Rejection under 35 U.S.C. § 112, second paragraph**

The Examiner rejects claims 7 and 10 under 35 U.S.C. § 112, second paragraph, for alleged indefiniteness. The Examiner asserts that "an isolated amino acid sequence" in claim 7 and "the amino acid sequence of claim 8 or 9" in claim 10 are indefinite terms. Applicant has amended the claims and these terms are not recited in the currently amended claims 7 and 10. In view of the amendments, the rejections of claim 7 and claim 10 are now moot, and Applicant respectfully requests removal of these rejections.

**Rejections under 35 U.S.C. § 102(b)**

The Examiner rejects claims 7-11 and 15 under 35 U.S.C. § 102(b) as allegedly anticipated by each of Clarke et al. (2005), Graham et al. (2005), and Somerville et al. (2005). The Examiner asserts that the cited references disclose a polypeptide sequence that has 11.6%, 12.5%, and 11.6% identity to SEQ ID NO:2. In view of amended claim 7, the DspB polypeptide comprises "a polypeptide encoded by a nucleic acid sequence of at least 95% sequence identity to nucleotides 61 to 1143 of SEQ ID NO:1, wherein the DspB polypeptide cleaves  $\beta$ -substituted *N*-acetylglucosaminide." The cited polypeptide sequences are not encoded by a nucleic acid of at least 95% sequence identity to nucleotides 61 to 1143 of SEQ ID NO:1. Thus, the cited art does not disclose each and every element of any of claims 7-11 and 15. In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of the rejections under 35 U.S.C. § 102(b).

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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